

**I-95/395 HOT Lanes Proposal Review
Detailed Proposal
Staff Review Comments**

TAB 1 – QUALIFICATIONS AND EXPERIENCE

a. Identify the legal structure of the firm, or consortium of firms making the proposal. Identify the organizational structure for the project, the management approach and how each partner and major subcontractor in the structure fits into the overall team.

CLARK:

Legal/Organizational Structure: The project team is led by Clark Construction and Shirley Contracting Company with support from Wilbur Smith Associates, CH2M Hill, Dewberry, VHB, English Construction, APAC Atlantic, Inc., Commonwealth Service Company, Citigroup, Clark Ventures, McGuire Woods Consulting, Cofiroute USA, and Trichord Industries.

FLUOR AND TRANSURBAN:

Legal/Organizational Structure: The project team is led by Fluor Virginia, Inc., and Transurban (USA) Inc. The principal team members include the lead firms and HNTB, Bear Stearns, Vollmer Associates, Reed Smith, Edelman, Branch Highways, Lane, Tidewater Skanska and VMS with support from Air Survey, B & N, Legion Design/Campbell & Associates, MACTEC, R/S/M, WSSI and HMMH.

Management Approach:

Division	CLARK	FLUOR AND TRANSURBAN
Project Manager	Michael Post is the manager of the 95 Express project. As Program Manager, the Clark/Shirley team will ensure the effective management of the organizational structure as identified above.	Herb Morgan and Michael Kulper are the executive sponsors for the team with identified personnel assigned to project management, private investment, public/legal affairs, traffic forecasting, highway design, customer service, bus rapid transit systems, toll systems and asset management.
Location and Design	<p>The Clark/Shirley team has identified several changes from the original conceptual proposal in the detailed proposal. The limits of the project have been extended to the 14th Street Bridge in the north and to Rte. 1 in the Fredericksburg area. In both submissions, Clark/Shirley proposed that VDOT keep the responsibility of maintaining the I-95 corridor. However, in the detailed submittal Clark/Shirley has included a fund to reimburse VDOT for the maintenance costs of the lane miles that will be added as a result of this project. Trichord has been added as a team member. Trichord will be responsible for providing real-time travel times and information to commuters, radio stations, private and public sector companies. Finally, the project schedule and project costs have been updated to reflect the improvements in the detailed proposal.</p> <p>The Clark-Shirley team estimates that they will need approximately 66 personnel for quality control. This includes 25 to 35 Senior Project</p>	The submitting entity for this proposal has been changed to Fluor-Transurban. The organizational chart of the team has been revised to reflect the change in the proposing entity. The Executive Sponsors are Herb Morgan with Fluor and Michael Kulper with Transurban. Fluor will be the lead in the design-build stages and their Design-Build Project Director will be Michael Hatchell. Transurban will be the lead in the operations and asset management phase and their Project Director will be Ken Daley. Also, HMMH has been added as a team member to deal with issues relating to sound walls.

Division	CLARK	FLUOR AND TRANSURBAN
	Inspectors, 25 to 35 Junior Project Inspectors, 1 QA manager, 3 project resident engineers, 1 office engineer, and 1 office administrative assistant. Their plan is based on the process that was used with the Rte. 28 PPTA project.	

b. Describe the experience of each firm and the key principals involved in the proposed project. Described the length of time in business, business experience, public sector experience and other engagements of the firm(s). The lead organization must be identified.

Division	CLARK	FLUOR AND TRANSURBAN
Project Manager	<ul style="list-style-type: none"> Shirley Contracting Company, LLC – Construction Manager/ General Contractor The Clark Construction Group, Inc. – Project Manager Wilbur Smith Associates - Lead Design Engineer CH2M HILL - Design Engineer Dewberry & Davis LLC - Design Engineer VHB – Environmental Engineer English Construction – General Contractor APAC Atlantic, Inc. - Contractor Commonwealth Service Company - Financial Advisor Citigroup – Financial Consultant and Lead Underwriter Clark Ventures – Financial Consultant McGuireWoods Consulting - Government Affairs Cofiroute - Toll System Operator 	<ul style="list-style-type: none"> Fluor Developer - Prime Contractor for design-build, minority investor Transurban - Developer, Concession contractor or lead investor, toll systems and customer service HNTB - Lead design firm Supporting firms: Edelman - public outreach Branch Highways - construction, roadwork LANE Construction – paving and roadwork Tidewater Skanska - construction structures VMS – asset management Air Survey - Photogrammetric mapping B&N - Land survey CFSC - Right-of-way acquisition Legion Design/Campbell & Associates - Engineering and construction support MACTEC - Geotechnical, environmental, engineering and design, and construction support R/S/M - Public opinion studies WSSI - Wetland science, water resource engineering, and cultural resource consulting, permitting HMMH - Noise wall design
Structure and Bridge	<ul style="list-style-type: none"> The proposal identified key parties and their responsibilities, but did not provide an organizational structure. The proposal did not identify key personnel. The proposal identified the lead design firm, Wilbur Smith Associates (WSA). The proposal did not specifically identify that WSA would be responsible for bridge design. However, this firm, with the support of the other two design firms, is well qualified and competent to provide structural design for a project of this 	<ul style="list-style-type: none"> The proposed contractors have broad experience in highway and bridge construction in Virginia. Only Tidewater-Skanska has been proposed for structure construction; however, Branch Highways has extensive structure construction experience in Virginia also. The proposal identified the lead design firm, HNTB, for this project. The proposal also identified the responsible design manager for the project. It is assumed that HNTB would be responsible for bridge design. This firm is well qualified and

	<p>magnitude.</p> <ul style="list-style-type: none"> • The proposal clearly identified the key design and construction milestones. • Two of the three proposed contractors have extensive experience in bridge construction in Virginia and have experience on Virginia PPTA projects. • The proposal identified the location of grade separation and stream crossing bridges involved in their plan. The proposal also identified the locations that would require new bridges and locations where existing bridges would not need modification. 	<p>competent to provide structural design for a project of this magnitude.</p> <ul style="list-style-type: none"> • The proposal included an organizational chart with key parties and their respective responsibilities. The proposal identified key personnel. • The proposal clearly identified the key design and construction milestones and anticipated opening in proposed schedule. • The proposal did not quantify the major structures involved.
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c. Provide the names, addresses and phone numbers of persons within the firm or consortium who may be contacted for further information.

Division	CLARK	FLUOR AND TRANSURBAN
Project Manager	<p>Mr. Michael Post 95 Express, LLC 8435 Backlick Road Lorton, Virginia 22079 703-550-8100</p>	<p>Mr. Herb Morgan Fluor and Transurban 6767 Forest Hill Avenue, Suite 305 Richmond, Virginia 23225 804-304-6204</p>

d. Include the address, telephone number, and the names of a specific contact person for an entity for which the firm/consortia or primary members of the consortia have completed a similar project.

Division	CLARK	FLUOR AND TRANSURBAN
Project Manager	<p>SR 91</p> <p>Mr. Daryl Watkins Orange County Transportation Authority 550 Main Street Orange, California 92863</p> <p>714-560-5406</p>	<p>Conway Bypass, South Carolina</p> <p>Mr. Tony Chapman State Highway Engineer South Carolina DOT 955 Park Street Columbia, South Carolina 29202</p> <p>803-737-1314</p>

e. *Provide a financial statement of the firm/consortia and each major partner. Submit the most recent Securities and Exchange Commission 10-K and 10-Q reports, if such reports have been filed.*

Division	CLARK	FLUOR AND TRANSURBAN
Project Manager	Financial statements provided to the VDOT Chief Financial Officer.	Financial statements provided to the VDOT Chief Financial Officer.

f. *Include any planned participation of small, women-, and minority-owned businesses during project development and implementation.*

Division	CLARK	FLUOR AND TRANSURBAN
Project Manager	<p>The team will effectively use the services and appropriate personnel from the following organizations in order to solicit interested DBE's.</p> <p>Virginia Department of Minority Business Enterprises</p> <ul style="list-style-type: none"> • U.S. Small Business Administration • U.S. Dept. of Commerce Minority Business Development Agency • D.C. Minority Business Opportunity Commission • VDOT Certified Disadvantaged and Women-Owned Business Enterprises • Maryland Minority Business Enterprise Program • Montgomery County Government Minority Business Directory • Business Research Services, Inc. Regional Directory of Minority and Women Owned Business Firms, Northeast Region • Existing Company List. <p>A combination of these tools and resources will be utilized by our team to ensure that we maximize DBE opportunities and participation for this project.</p>	<p>The Fluor-Transurban team has committed to meet or exceed the established goal of 10% for DBE participation</p> <p>Legion Design/Campbell & Associates, Continental Field Service Corp. are part of the team, and Tavares Concrete, L & L Construction Corp. and Midasco Inc. will be given opportunities to join the team.</p> <p>VMS has a history of utilizing DBE firms.</p>
Location and Design	<p>The Clark/Shirley team proposes to utilize several programs that they have used on past projects to ensure successful DBE participation in the 95 Express project. Some of the programs include Business Opportunity Fairs, DBE pre-bid meetings, DBE business plan room, and payment alternatives. The team also plans to utilize key personnel from the following agencies Virginia Department of Minority Business Enterprises, VDOT Certified Disadvantaged and Women-Owned Business Enterprises, U.S. Small Business Administration, and others to obtain information about DBE's in the area.</p>	<p>The Fluor-Transurban plan to solicit more DBE firms includes utilizing VDOT's approved DBE list, advertising in trade and association publications, and relying on past experience.</p>

TAB 2: PROJECT CHARACTERISTICS:

- a. *Provide a description of the transportation facility or facilities, including the conceptual design and all proposed interconnections with other transportation facilities. Described the project in sufficient detail so the type and intent of the project, the location, and the communities that may be affected are clearly identified. Described the assumptions used in developing the project. The project description should be prepared in a way that fully recognizes any federal and/or Commonwealth requirements to analyze other project alignments and alternatives.*

Division	CLARK	FLUOR AND TRANSURBAN
Location and Design	<p>The proposal consists of five phases to complete the work.</p> <ul style="list-style-type: none"> Phase A will modify the existing roadway from the I-495 Capital Beltway to the terminus of the existing HOV lanes just south of Rte. 234. This phase will consist of milling and resurfacing the existing two HOV lanes and restriping the new surface to accommodate three reversible lanes of HOT traffic. The HOT lanes will be 12' wide. From the beltway to midway between Rte. 123 and Prince William Parkway the shoulders will be 2' on one side and 9'-10' on the other side. The travel lanes can be decreased to 11.5' to increase the width of the shoulders. The HOT lanes will be separated from the mainline using concrete barriers. From midway between Rte 123 and the Prince William Parkway to the end of the existing HOV lanes, the shoulders will be widened so that 9' and 6' graded shoulders (4' paved) will be maintained. This section will only require barrier or guardrail where elevation differences occur between the mainline and the HOT lanes. Three additional access points will be added in Prince William County in the vicinity of Opitz Boulevard. This phase will require design exceptions due to the narrow shoulder width. During Phase B, HOV connections at the I-95/I-395/I-495 interchange will be constructed. This work is also known as Phase 8 of the Springfield Interchange project. Phase C includes construction of 18 miles of HOT lanes in a 3 lane reversible configuration from Rte. 234 to the I-95/Rte. 17 interchange just north of Fredericksburg. All HOT lanes will be 12' wide. The shoulders will be 9' graded/ 4' paved on the east side and 6' graded/ 4' paved on the west side. Several sections in this phase will require retaining walls due to the elevation differences between the existing north and south bound lanes. Guardrail and/or concrete barrier will be installed as necessary. During this phase, new slip ramps in each direction will be constructed at 5 locations to allow access between the mainline 	<p>The proposal consists of four segments to complete the work.</p> <ul style="list-style-type: none"> Segment A consists of modifying the existing roadway between the 14th Street Bridge and the Springfield Interchange. The existing two HOV lanes will be milled, overlaid, and restriped to accommodate three reversible lanes of traffic. The existing shoulders will be removed and replaced with full depth pavement. The HOT lanes will be 11' wide. Between the 14th Street Bridge and north of Rte. 7 the shoulders will be 2' on one side and 9' on the opposite side. From north of Rte. 7 to the Springfield Interchange the shoulders will be 5' on one side and 10' on the other side. A design exception will be required in this area due to the narrow lane and shoulder widths. The HOT lanes will be separated from the mainline by concrete barriers. Five new access points will be added during this phase. Segment B consists of the I-95/I-395/I-495 interchange, which is also known as Phase 8 of the Springfield Interchange project. It is currently included in the Beltway HOT Lane project, but it could be constructed with this project. Segment C consists of modifying the roadway between the Capital Beltway and Quantico Creek. This phase will consist of milling and resurfacing the existing two HOV lanes and restriping the new surface to accommodate three reversible lanes of HOT traffic. There will be two typical sections through this area. The first typical includes 11' travel lanes with 4.25' shoulders on one side and 10' shoulders on the other side of the travel lanes. A design exception will be required for this typical section. The second typical includes 12' travel lanes and 10' shoulders on both sides of the roadway. The proposal estimates that the typical with full width shoulders will be applied from just north of the Prince William Parkway to Quantico Creek. The HOT lanes will be separated from the mainline by concrete barriers where deemed necessary. Six new access points will be

	<p>and the HOT lanes.</p> <ul style="list-style-type: none"> Phase D involves converting the existing HOV lanes between the Beltway and the 14th Street Bridge to HOT lanes. The typical section through this area is similar to that in Phase A. However, the shoulders in this area are not full depth pavement, so they will have to be reconstructed. The lane widths will also have to be 11'. An additional flyover ramp will be added between Edsell Rd. and the Little North River Turnpike. \$15 million was included in the proposal for improvements to relieve congestion in the 14th Street Bridge area. This phase will require design exceptions due to the narrow lane and shoulder widths. Phase E involves the construction of a two-lane collector-distributor system between the Rte. 17 and Rte. 3 interchanges in Fredericksburg. Also during this phase, an additional southbound general purpose lane will be added from the Rte. 3 interchange to the Rte. 1 Massaponax exit and an additional northbound general purpose lane will be added from the Rte. 1 exit to the Rte. 17 interchange. A second lane will be added to the southbound off ramp at the Rte. 1 exit. This construction will require that the I-95 bridges over the Rappahannock River be widened. 	<p>added during this phase.</p> <ul style="list-style-type: none"> Segment D consists of constructing approximately 28 miles of two reversible lanes to accommodate HOT traffic from Quantico Creek to south of Rte. 17 at Massaponax. The HOT lanes will be 12' wide. The shoulders will be 10' graded/4' paved on one side and 22' graded/4' paved on the other side of the travel lanes. At two locations, Rte. 628 and the southern terminus of the HOT lanes, the existing mainline will be adjusted so that the median can accommodate the new HOT lanes. The proposal states that the new lanes will be designed so that a third lane can be added in the future. Twenty-two new access points will be added during this phase.
Materials	<p>No information is provided regarding the proposed pavement structure/thickness nor is there any detail on how that will be determined. In the portion of the document that addressed using the existing HOV lanes for HOT lanes, they mention milling and overlay of the existing pavement. No mention is made of a method of investigation and analysis to be used to determine depth of milling or how thick of an overlay will be needed to assure adequate strength of the new pavement. The proposed pavement section/thickness determination method/parameters should be agreed to prior to finalizing a cost/contract. The pavement design provided under this proposal for Phase 8 of the Springfield Interchange project should equal or exceed the thickness shown on the original VDOT plans.</p>	<p>No information is provided regarding the proposed pavement structure/thickness nor is there any detail on how that will be determined. No mention is made of a method of investigation and analysis to be used to determine depth of milling or how thick of an overlay will be needed to assure adequate strength of the new pavement. The proposed pavement section/thickness determination method/parameters should be agreed to prior to finalizing a cost/contract. It is noted that Phase 8 of the Springfield Interchange will be constructed under the Beltway HOT Lanes project.</p>
Northern Virginia District	<p>All structures traversing the corridor that require reconstruction due to these proposals should provide for bicycle and pedestrian facilities. All existing bike & pedestrian facilities should not be detrimentally affected.</p> <p>New requirements for bridges call for full width approach slabs. Also,</p>	<p>All structures traversing the corridor that require reconstruction due to these proposals should provide for bicycle and pedestrian facilities. All existing bike & pedestrian facilities should not be detrimentally affected.</p> <p>New requirements for bridges call for full width approach slabs. Also,</p>

	<p>the load rating of any bridge structure that is to be modified is required from the Contractor. These items have created problems with existing PPTA projects where they were not pointed out prior to contract agreement.</p> <p>All sections should maintain at least a 10-foot shoulder to allow for a reasonable amount of space for snow storage. Also, the entire HOV/HOT roadway should be sloped toward this wide shoulder to prevent melt back problems. The limited shoulder width will ultimately require more maintenance lane closures in the future and therefore additional costs for traffic control.</p> <p>It is unclear as to how the 95 HOT Lanes will tie to the 495 HOT Lanes?</p>	<p>the load rating of any bridge structure that is to be modified is required from the Contractor. These items have created problems with existing PPTA projects where they were not pointed out prior to contract agreement.</p> <p>All sections should maintain at least a 10-foot shoulder to allow for a reasonable amount of space for snow storage. Also, the entire HOV/HOT roadway should be sloped toward this wide shoulder to prevent melt back problems. The limited shoulder width will ultimately require more maintenance lane closures in the future and therefore additional costs for traffic control.</p>
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b. Identify and fully describe any work to be performed by VDOT.

Division	CLARK	FLUOR AND TRANSURBAN
Location and Design		The Fluor –Transurban Team suggests that VDOT apply for the SEP-15 process to aid in the approval and compliance of environmental issues. This process will allow the PPTA partner to perform many of the tasks related to NEPA. However, the Team proposes that VDOT keep responsibility for determining the purpose and need, screening of alternatives, and preparation of final NEPA documents.
Materials	<p>The section on “Materials Testing” states, “Troxler certification may be an acceptable alternative for nuclear density inspection of compacted soils and asphalt concrete.” It is believed the Troxler certification referenced is an approved Nuclear Regulatory Commission program that is applicable to safety issues related to use of the gauge, not in the actual use of the gauge to conduct tests. The individuals conducting these tests need to acquire the appropriate VDOT certification.</p> <p>Regarding on-site concrete testing, it should be noted that the proposers need to consider in their proposals enough concrete test cylinders for both strength and permeability.</p> <p>On page 4, Item 2 which is a continuation of “Materials Testing”, it states “The QA/QC staff will coordinate and receive all test results and reports for services from the laboratories and plant inspectors for laboratory tests on soils, laboratory tests on concrete, shop inspection</p>	The description of the QA/QC program for construction is very general and lacking adequate detail for an in-depth evaluation. Most items required by VDOT have not been addressed such as depth checks on asphalt pavement, underdrain camera inspections, etc. They did mention QA of third party material suppliers as is currently performed on traditional projects (steel fabrication, prestressed concrete plants, etc.), which is acceptable to us. However, it is not clear who is responsible for performing QC testing for asphalt, aggregate and concrete plants nor is it clear who is responsible for performing QA testing/monitoring. The same is true for precast concrete plants, concrete pipe plants or other miscellaneous material plants. I do not know what level of detail is required at this phase of the project development, but I do not believe it is critical that the QA/QC program be highly detailed at this phase of the project. I believe at this phase it may be important to convey the following concept: It is recommended that existing processes be utilized for materials acceptance for the

	<p>of fabricated structural steel, monitoring of concrete, asphalt and crusher plants, and certifications from FOB job site provided materials.” The question becomes “who will do these functions?” It is recommended that existing processes be utilized for materials acceptance for the following <u>offsite</u> material inspection (VDOT Materials performs some functions and the producer performs some functions): structural steel, precast/prestressed concrete, plastic pipe, asphalt concrete and dense graded aggregate. The design-build firm will notify VDOT of the sources to be used for these materials, so VDOT can assign inspection. It needs to be made clear that other functions will be performed by the design-build firm.</p>	<p>following <u>offsite</u> material inspection (VDOT Materials performs some functions and the producer performs some functions): structural steel, precast/prestressed concrete, plastic pipe, asphalt concrete and dense graded aggregate. The design-build firm will notify VDOT of the sources to be used for these materials, so VDOT can assign inspection.</p>
Materials	<p>On page 6 regarding Roadway Inspection, it states “Offsite borrow sources less than 10,000 cubic yards may be accepted by visual inspection for use on the project by the QA inspection team.” I recommend that specifics such as this should not be committed to at this stage of development. I recommend that this statement be made regarding the entire QA/QC program section of this document.</p> <p>On page 7 regarding Bituminous Concrete Paving, it states in the second sentence of the first paragraph that “QC and QA testing includes gradation, % asphalt cement, air voids, VMA, temperature density (via cores), lift thickness and smoothness.” See comment above concerning <u>offsite</u> material inspection.</p> <p>On page 13, Item 1 Control Testing, See comment above concerning <u>offsite</u> material inspection.</p> <p>On page 18, Item 3d Inspection and Testing, it states, “Unapproved materials may be used only with written permission of the QA Manager.” Unapproved material needs to go to VDOT with a formal request to use unapproved material.</p>	<p>It was not clear as to who would be responsible for shop drawing review and approval. It also was not clear what minimum qualifications would be required for laboratories that would be providing inspection/testing QA/QC services or what firm(s) would be providing these services.</p>
Northern Virginia District		<p>Page 2-26 indicates that a team member, VMS, will maintain the new facility but does not give any indication as to where VMS maintenance sites will be located (how close to the facility, either geographically or in terms of response time) nor how many sites are envisioned.</p>

Fredericksburg District	Any and all changes/additions to the assets within this project will need to be documented electronically by means compatible with current Inventory and Condition Assessment Procedures as developed by the Asset Management Division. This includes new assets such as roadway lanes, guardrail, concrete barrier, stormwater management basins, changeable message signs, cameras, fiber optic cable, etc.	Any and all changes/additions to the assets within this project will need to be documented electronically by means compatible with current Inventory and Condition Assessment Procedures as developed by the Asset Management Division. This includes new assets such as roadway lanes, guardrail, concrete barrier, stormwater management basins, changeable message signs, cameras, fiber optic cable, etc.
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c. Include a list of all federal, state and local permits and approvals required for the project and a schedule for obtaining such permits and approvals. Identify which, if any, permits or approvals are to be obtained by VDOT.

Division	CLARK	FLUOR AND TRANSURBAN
Right of Way and Utilities	There are Federal properties involved along a portion of Quantico Marine Base	There are Federal properties involved along a portion of Quantico Marine Base

Environmental Division	<p>Clark-Shirley will fund and accomplish environmental studies under direction of VDOT. Would likely require SEP-15 agreement with FHWA.</p> <p>Clark-Shirley's proposal has adequately taken into account FHWA/VDOT environmental requirements. Time allocated for Interstate Justification Report(s) appears insufficient. If any R/W is required for the project from federal owners along the corridor (Dept. of Defense, National Park Service, etc.) their independent NEPA requirements may affect the proposed schedule.</p> <p>Clark-Shirley has allocated project contingency, of which \$4-5 million may reimburse VDOT for oversight/administrative costs for planning, permitting, and QA process.</p> <p>Clark-Shirley indicates their team would provide manpower and resources for completion of technical work in support of NEPA. VDOT provides oversight, QC reviews, and approvals. NEPA documentation assumptions (levels of documentation and length of time to complete) appear reasonable. However, the project NEPA approvals would not be given by VDOT/FHWA until the project is in the CLRP, TIP, and STIP.</p> <p>Clark-Shirley notes the need for FHWA approval of only 1 experimental feature (SEP-14 for use of TIFIA loan for finance). However, the approach proposed by this team (assisting in preparation of NEPA documentation) would likely require SEP-15 agreement with FHWA.</p>	<p>Fluor offers to obtain an Environmental Compliance Coordinator to assist VDOT in NEPA process and document preparation. Fluor believes tiered approach and EIS necessary for NEPA documentation for project; VDOT is confident NEPA compliance can be achieved through a more streamlined approach that will save both time and money.</p> <p>Fluor believes tiered approach and EIS necessary for NEPA compliance; VDOT is confident NEPA compliance can be achieved through a more streamlined approach that will save both time and money. Also, if any R/W is required for the project from federal owners along the corridor (Dept. of Defense, National Park Service, etc.) their independent NEPA requirements may affect the proposed schedule; may also affect Fluor's plan of finance.</p>
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d. *Without completing an Environmental Impact Statement, identify any anticipated adverse social, economic and environmental impacts of the project. Specify the strategies or actions to mitigate known impacts. Identify the projected positive social, economic and environmental impacts of the project.*

Division	CLARK	FLUOR AND TRANSURBAN
Environmental Division	<p>There is substantial difference between VDOT estimate for sound barriers and Clark-Shirley's estimate; may also affect the Proposers plan of finance.</p> <p>Clark-Shirley's R/W costs may not include all sound barrier requirements</p>	<p>Fluor proposes a Process Streamlining Agreement between VDOT and FHWA. Also proposes use of tiered NEPA process.</p> <p>There is considerable difference between VDOT estimate for sound barriers and Fluor's estimate.</p>
Northern	The Contractor schedule implies "Tier II" projects would begin	The Contractor schedule implies "Tier II" projects would begin

Virginia District	following the Record of Decision (ROD) for the "Tier I" projects. NEPA documentation for projects outside the existing right of way (ROW) can occur concurrently with Segments A, B, C and D within the existing ROW.	following the Record of Decision (ROD) for the "Tier I" projects. NEPA documentation for projects outside the existing right of way (ROW) can occur concurrently with Segments A, B, C and D within the existing ROW. Page 2-37 discusses options for “compensatory mitigation” but does not clarify whether the costs for such environmental mitigation will be borne by the Fluor team.
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e. List the critical factors for the project's success.

Division	CLARK	FLUOR AND TRANSURBAN
Project Manager	<ul style="list-style-type: none"> • Coordination and cooperation among project team members, VDOT, local, state and federal regulatory and oversight agencies. • Public acceptance of the project. • Environmental and project approvals and a timely NEPA process. • Confirmation in an investment grade traffic and revenue report of the projected amounts of annual toll revenues. • Acceptance of annual debt service from the projected toll revenues • Use of Federal TIFIA credit assistance program 	<ul style="list-style-type: none"> • Obtaining a consensus on the need. • Providing a regional system solution. • Expanding existing transit operations. • Public and Community Support. • Developing an environmentally sensitive plan. • Improving highway and transit safety. • Providing systems that result in efficient and customer friendly operations.

f. Identify the proposed schedule for operator's work on the project, including the estimated time for completion.

Division	CLARK	FLUOR AND TRANSURBAN
Location and Design	The proposed end date for the project is September 2011. This date is based on the Comprehensive Agreement being signed in March 2006. Project planning and development will be from March 2006 through November 2007. Construction of Phases A and D will begin in March 2007 and conclude in July 2008. Construction of Phase B will begin in March 2007 and end in May 2011. Phases C and E will commence in March 2008 and conclude in September 2011. The project is estimated to be completed 5 ½ years after the Comprehensive Agreement is signed.	The proposed end date for the project is March 2011. This date is based on the Comprehensive Agreement being signed in February 2006. Segments A and C will begin April 2007 and be opened to traffic during July 2009. Segment D will commence in April 2003 and will be complete in March 2011. The project is estimated to be completed 5 years after the Comprehensive Agreement is signed.
Scheduling and Contract Division	Clark/Shirley completes the entire project about 6 months later then Flour, however Flour is not building Phase VIII of the Springfield Interchange. Clark/Shirley does complete certain elements earlier then Flour, specifically the work North of Springfield and the work south of Springfield to Dumfries.	Clark/Shirley completes the entire project about 6 months later then Flour, however Flour is not building Phase VIII of the Springfield Interchange. Clark/Shirley does complete certain elements earlier then Flour, specifically the work North of Springfield and the work south of Springfield to Dumfries.

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g. Propose allocation of risk and liability for past agreement work, and assurances for timely completion of the project.

Division	CLARK	FLUOR AND TRANSURBAN
Traffic Engineering Division	The existing two-lane HOV facility will be expanded to three lanes from 14th St. bridge to Rt. 234. The existing loop detectors used by the STC along that route will be rendered useless by lane reconfiguration and milling. The proposal states that new ITS infrastructure will be deployed along the entire HOT system (cameras, VMS, detectors). VDOT would like clarification on whether we will have a direct feed from the cameras and detectors. Also, will VDOT STC staff be able to post messages on VMS within the HOT facility?	
Materials	There is no mention of any proposed geotechnical investigation for the roadway or structures in any of the associated documents submitted for review. The proposed new alignment and pavement shoulder reconstruction (Capital Beltway to Washington, DC) will require extensive investigations to adequately deal with marine clays, wet subgrade soils, organic matter buried in outside slopes of the embankments, verify adequate thickness of existing shoulder pavements for mainline traffic (expected to be problematic from Route 644 to I-495), determine bridge foundation types, sizes, and footing levels, retaining wall foundations, CBR values, drainage structure foundations, etc. These need to be completed prior to the start of construction in each phase.	There is no mention of any proposed geotechnical investigations in the proposal, although MACTEC is included in the team listing. The proposed new alignments and pavement shoulder reconstruction (Capital Beltway to Washington, DC) will require extensive investigations to adequately deal with marine clays, wet subgrade soils, organic matter buried in outside slopes of the embankments, verify adequate thickness of existing shoulder pavements for mainline traffic (expected to be problematic from Route 644 to I-495), determine bridge foundation types, sizes, and footing levels, retaining wall foundations, CBR values, drainage structure foundations, etc. These issues will need to be completed prior to the start of construction in each phase.

h. Clearly state the assumptions related to ownership, legal liability, law enforcement and operation of the facility.

Division	CLARK	FLUOR AND TRANSURBAN
Location and Design	The Clark/Shirley team proposes that police enforcement will be concentrated at the entrance areas where vehicles claim whether they are HOV or toll paying. Enforcement areas will be located downstream of the entrance so police officers will have a clear view to identify the number of passengers in a vehicle. Six locations have been identified on the southbound side for police enforcement areas. Only four locations are needed on the northbound side as enforcement areas. The team also proposes that technology can be used to track violators within the system and to place enforcement officers as the location where the violators exit the system. The financing plan includes funding for additional police enforcement at the toll plazas.	

Traffic Engineering Division	It was mentioned that locations for police officers to station themselves for enforcement would be provided, ample space for pulling drivers over without blocking lanes must also be provided. It is understood that the majority of enforcement will be conducted with photo monitoring, however some locations for police enforcement are still necessary.	Enforcement pull-offs need to be planned. It is understood that the majority of enforcement will be conducted with photo monitoring, however some locations for police enforcement are still necessary. Under section 2.a.9, Page 2-15: The proposal talks about the system having a violation enforcement system and a violation processing system. We would like more details about FTT's enforcement system. Will they have enforcement squads, or cameras, or both? Or perhaps some other technology. If they do have enforcers on the road, will it be VSP or some private entity? Who will manage incidents, since they are the owners?
Northern Virginia District		The Proposal depends on the VSP for enforcement, with no mention of additional funds. Has the use of an independent entity funded with ticket revenues been considered?

i. Provide information on any phased (partial) openings proposed prior to final completion of the work.

Division	CLARK	FLUOR AND TRANSURBAN
Northern Virginia District	<p>Phase A: Beltway to Rte 234 - restripe from 2 to 3 lanes</p> <ul style="list-style-type: none"> • Estimated to be completed by July 2008 <p>Phase B: Phase 8 SIP</p> <ul style="list-style-type: none"> • Estimated to be completed by May 2011 <p>Phase C: Rte 234 to Rte 610 - New 3 lane facility Rte 610 to Rte 3 - New 2 lane facility</p> <ul style="list-style-type: none"> • Estimated to be completed by October 2011 <p>Phase D: DC to Beltway - restripe from 2 to 3 lanes</p> <ul style="list-style-type: none"> • Estimated to be completed by July 2008 <p>Phase E: Route 17 to Rte 3 - New 2 lane facility 4th GP Lane SB 95 – Rt. 3 to Rt. 1 4th GP Lane NB 95 –Rt. 1 to Rt. 17</p> <ul style="list-style-type: none"> • Estimated to be completed by October 2011 	<p>Segment A: 14th St Bridge to Beltway – restripe from 2 to 3 lanes</p> <ul style="list-style-type: none"> • Estimated to be completed July 09 <p>Segment B: Phase VIII SIP</p> <ul style="list-style-type: none"> • Estimated to be constructed with the Capital Beltway in 2010 per CLRP. <p>Segment C: Beltway to Quantico Creek – restripe from 2 to 3 lanes</p> <ul style="list-style-type: none"> • Estimated to be completed July 09 <p>Segment D: Quantico Creek to South of Rte 17 – New 2 lane facility</p> <ul style="list-style-type: none"> • Estimated to be completed March 2011

TAB 3: Project Financing

a. Provide a preliminary estimate and estimating methodology of the cost of the work by phase and/or segment (e.g. planning, design, construction).

Division	CLARK	FLUOR AND TRANSURBAN
Scheduling and Contract	The Clark/Shirley proposal appears reasonable based on the estimate work done by the Division in Sept. of 04. The estimate was \$645,740,000 in 2004 dollars. Assuming these dollars are spent as	The Flour proposal appears high at \$913,400,000 since it does not include Phase VIII of the Springfield Interchange valued at approximately \$85,000,000 in the Clark/Shirley proposal and at

	<p>follows:</p> <p>2007 250,000,000 2008 200,000,000 2009 150,000,000 2010 45,740,000</p> <p>With a 3% annual escalation in cost starting in 2006 this would make this estimate around \$724,500,000. Clark/Shirley is actually showing some funds spent in 2011, which could even increase this estimate slightly</p>	\$116,200,000 in the Division's estimate of September 2004.
Location and Design	<p>The estimated price to develop, design, and construct the 95 Express project is \$815,975,000. This price is based on the year of disbursement and includes an assumed escalation of 3% per year for materials and 4% per year for equipment and labor. The estimate includes costs for design, inspection, environmental studies, permitting, right of way, utilities, construction, lighting, soundwalls, mass transit investments, and contingencies. The estimate also includes Phase 8 of the Springfield Interchange project. The estimate was developed by determining basic typical sections, alignments, profiles, and bridge dimensions. A list of bid items and quantities was developed based on the preliminary typical. The prices were determined by using cost estimating systems, historical data, and input from major suppliers and contractors.</p>	<p>A major change from the conceptual proposal is the option of two alternate financing plans. The first is based on tax-exempt toll revenue bonds. The projected fund sources for this option include: \$575.60 million from Senior Toll Revenue Bonds, \$305.49 million from TIFIA, \$135.00 million from Fluor-Transurban Investments, and \$67.76 million from investment earnings for a total of \$1.08 billion. Under this plan the team estimates that subsidies of up to \$510 million can be generated from the toll system. The second option is a lease and concession funding plan. Under this plan a concession company owned by Fluor-Transurban will enter into a lease agreement with VDOT. The concession company will be responsible for financing, construction, operation, and maintenance of the project. After the specified lease time, assumed to be 60 years, the roadway system will be handed back to VDOT. The concession fee at closing is estimated to be \$250 million. The projected funding sources for this option include \$859.0 million from Senior Debt (bank debt), \$157.3 million from TIFIA, \$270.0 million from Fluor-Transurban Investments, and \$55.3 million from operational cash flow generated during construction for a total of \$1.34 billion.</p> <p>The preliminary cost estimate is \$913.4 million. This estimate was based on rough quantities obtained from sketches of the proposed work. Industry standards were used for the lane widths, decel/accel distances, bus station dimensions, and parking lot design. The cost is based on a construction begin date of May 2007 and the prices are inflated to the date of expenditure. The assumed inflation rate for bridge work is 5% per year and the inflation rate for road and paving work is 3% per year. This cost includes allocations for permitting, soundwalls, and right of way acquisitions. The estimated cost does not include money for hazardous material abatement, contaminated soils, or historical/archaeological site resolution.</p>

b. Submitted a plan for the development, financing and operation of the project, showing: the anticipated schedule on which funds will be required; and proposed sources and uses for such funds.

Division	CLARK	FLUOR AND TRANSURBAN
Location and Design	The estimated sources of revenue total \$997,782,000. This price is higher than the project cost mentioned above, because it includes financing for management and enforcement of toll collection, reimbursement to VDOT for maintenance, and replacing the toll equipment on a seven-year cycle. The projected fund sources include: \$681,365,000 from tax-exempt Toll Revenue Bonds, \$258,540,000 from Bond Anticipation Notes (TIFIA), \$17,035,000 from premiums on the BANs, and \$40,842,000 from investment earnings in the project fund. There will be two separate closing dates for the bond financings. The first closing date is projected for March 2007 and these funds will finance Phases A, B, and D. The second closing date is projected for March 2008 and will finance Phases C and E. These dates are based on a Comprehensive Agreement being signed in March 2006. Travelers Casualty and Surety Company of America will provide bonding in the amount of \$2.5 billion.	

c. Include a list and discussion of assumptions (user fees or toll rates, and usage of the facility) underlying all major elements of the plan.

Division	CLARK	FLUOR AND TRANSURBAN
Location and Design	The toll rates will be managed so that a level of service C or better is maintained on the 95 Express lanes during the peak periods. The toll rates vary from \$0.075 to \$0.40 per mile depending on the location and the time. The toll rate can be adjusted every 6 to 8 minutes to ensure that the correct level of service is maintained. The commuter will be notified of the rate as he enters the system and this rate will apply for his entire trip through the system. A toll elasticity analysis was not performed. The toll prices were estimated using data from existing HOV/HOT lane facilities. The peak, shoulder, and off peak timeframes were determined by examining existing hourly traffic counts by direction in the I-95 corridor.	
Traffic Engineering Division	Inside (and possibly outside) the Beltway, VDOT's existing fiber optic infrastructure may need to be relocated. Does the team have a sense for how much of the infrastructure may need to be moved? If major, the infrastructure for the HOT facility AND VDOT's STC could be designed and built jointly through the entire route. The proposal states	FTT proposes to use existing monitoring and information devices on the HOV lanes, and extend the system to cover the entire length. They also mention interfacing with the Nova and Fredericksburg STC's, and even co-locating with one or both. It is important to consider "resource sharing" of ITS assets, where VDOT can have access to the FTT

	<p>that fiber will need to be installed from Rt 234 to Rt 17, but won't the team need fiber on the segment from Rt 234 to the 14th St. Bridge? Was the intent to use existing VDOT conduits on that segment? We likely don't have spare conduit capacity. In any case, VDOT should receive at least a conduit and cable (and one spare conduit) along any new HOT roadway segments.</p> <p>There is mention of a new Traffic Management Center for HOT lane operations (pg 127). Does the team have an idea where this will be located? Is it possible/practical to be co-located with VDOT's current or future NOVA STC? We will ultimately need more details on how data and devices will be shared throughout the corridor.</p>	<p>deployments, because they are planning on utilizing VDOT's. Control, etc issues can be worked out. As referenced in Nova District's comments, VDOT should shy away from any limitations on the use of data.</p> <p>FTT proposes to utilize the existing VDOT fiber optic infrastructure, and extend the system from Dumfries to cover the entire project length. Portions of the existing Nova STC fiber network along I-95 may be within the HOV boundary, which may have to be relocated. Within that network the US Corps of Engineers (COE) has a conduit and fiber optic cable under a fiber optic resource-sharing MOA with VDOT. There are restrictions on who is allowed to relocate the COE fiber.</p> <p>If FTT is granted use of the existing VDOT fiber optic infrastructure then VDOT should, in return, obtain ownership of the fiber optic conduit and cable in the extended portion of the system.</p>
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d. Identify the proposed risk factors and methods for dealing with these factors.

Division	CLARK	FLUOR AND TRANSURBAN
Location and Design	<p>The Clark/Shirley team assumes the risk for financing, design, construction costs, schedule, and revenue from use of the toll lanes. A team member of Clark/Shirley will assume responsibility for operation and maintenance of the toll collection system. VDOT will have responsibility for maintaining the I-95 corridor and the SERP/NEPA approvals.</p>	<p>The Fluor-Transurban team will take the responsibility of risk assignment and management. Fluor will take the primary risks and responsibilities for design/build. Transurban will take the primary risks and responsibilities for operations, maintenance, customer service, and business/investment related risks. VDOT will take the primary risks and responsibilities for environmental approvals.</p> <p>The Fluor-Transurban Team reports that several design exceptions will be necessary to complete the project. Design exceptions are needed in specific locations throughout the project length due to the reduced lane and shoulder widths. Also, locations within the corridor will need design exceptions because the horizontal stopping sight distance can only support a 45 mph design speed.</p>
Location and Design	<p>The Clark/Shirley team has developed a project plan to ensure the safety of their workers and the traveling public. Some of the elements of the plan include daily meetings to discuss safety topics, a dedicated Project Safety Manager, and a safety incentive program for all employees. OSHA data for the last five years was provided for the Shirley Contracting Company, LLC.</p>	<p>The Fluor-Transurban team has developed a project plan to ensure the safety of their workers and the traveling public. Some of the elements of the plan include the implementation of a Safety Manager and a safety team, who have the authority to stop work if safety infractions exist, formal and informal safety audits every week, monthly equipment inspections, and safety training for all employees.</p>

Traffic Engineering Division	This proposal states that heavy commercial vehicles would be prohibited from using the HOV/HOT lanes. There are currently no such restrictions and some approvals would be needed in order to implement this restriction. Design should not preclude their restriction until it has been granted.	This proposal states that heavy commercial vehicles would be prohibited from using the HOV/HOT lanes. There are currently no such restrictions and some approvals would be needed in order to implement this restriction. Design should not preclude their restriction until it has been granted.
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e. Identify any local, state or federal resources that the proposer contemplates requesting for the project. Describe the total commitment (financial, services, property, etc.), if any, expected from governmental sources; and the timing of any anticipated commitment.

Division	CLARK	FLUOR AND TRANSURBAN
Northern Virginia District	In the Contractor schedule for NEPA documentation, they list State Environmental Review Process (SERP) being completed in 1 month. SERP is a statutory 45-day review process by state regulatory agencies. The schedule will need to be adjusted to reflect at least 3 months to complete since administration of SERP is a VDOT legal obligation under the Code of Virginia. The Contractor will have the responsibility of fulfilling SERP commitments. Additionally, SERP will be required for "Tier II" project elements and needs to be incorporated in the Contractor's schedule.	In the Contractor schedule for NEPA documentation, they list State Environmental Review Process (SERP) being completed in 1 month. SERP is a statutory 45-day review process by state regulatory agencies. The schedule will need to be adjusted to reflect at least 3 months to complete since administration of SERP is a VDOT legal obligation under the Code of Virginia. The Contractor will have the responsibility of fulfilling SERP commitments. Additionally, SERP will be required for "Tier II" project elements and needs to be incorporated in the Contractor's schedule.
Northern Virginia District	<p>The Contractor proposes supporting VDOT in preparing joint permit applications through the Interagency Coordination Meeting (IACM) process. The IACM is an agreement VDOT has secured with the regulatory agencies that is not available to the Contractor. The Contractor must acquire all needed natural resources clearances and permit acquisitions through the individual permit process (including permit fees). This includes any required stream and wetland mitigation. This is also in-line with the SEP-15 application process for PPTA participation. Staffing availability within the VDOT NOVA and Fredericksburg Environmental Sections would need to be assessed to determine if they are adequate to avoid impeding the streamlining goals of the SEP-15 process.</p> <p>The Contractor shall remain responsible for construction/post-construction compliance with permit requirements and with commitments for wetland and/or stream mitigation.</p>	<p>The Contractor proposes supporting VDOT in preparing joint permit applications through the Interagency Coordination Meeting (IACM) process. The IACM is an agreement VDOT has secured with the regulatory agencies that is not available to the Contractor. The Contractor must acquire all needed natural resources clearances and permit acquisitions through the individual permit process (including permit fees). This includes any required stream and wetland mitigation. This is also in-line with the SEP-15 application process for PPTA participation. Staffing availability within the VDOT NOVA and Fredericksburg Environmental Sections would need to be assessed to determine if they are adequate to avoid impeding the streamlining goals of the SEP-15 process.</p> <p>The Contractor shall remain responsible for construction/post-construction compliance with permit requirements and with commitments for wetland and/or stream mitigation.</p>
Northern Virginia	The Contractor shall be responsible for performing all cultural resources (archeological/architectural) surveys, evaluating resource	The Contractor shall be responsible for performing all cultural resources (archeological/architectural) surveys, evaluating resource

District	<p>significance, determining project effects on those resources, required mitigation, and coordination with Virginia Department of Historic Resources and other agencies as appropriate.</p> <p>The Contractor shall adhere to the FHWA policy for acquisition of environmentally "contaminated" properties. The Contractor shall be required to perform necessary CERCLA "due diligence" actions for properties to acquired for the project. Contractor shall report all contamination to applicable Federal and state regulatory agencies and complete activities required by those agencies such as waste disposal, property remediation, and/or long term monitoring.</p> <p>The Contractor must follow Federal Aid Policy Guide Procedures for Abatement of Highway Traffic Noise and Construction Noise (23 CFR 772) and the State Noise Abatement Policy as part of their methodology for anticipating and estimating noise mitigation needs. Assumptions that existing barriers are effective in reducing noise from this project cannot be accepted.</p> <p>High-rise apartment buildings cannot be excluded from barrier estimates based on assumptions; sound barrier estimates must be included for all affected properties.</p>	<p>significance, determining project effects on those resources, required mitigation, and coordination with Virginia Department of Historic Resources and other agencies as appropriate.</p> <p>The Contractor shall adhere to the FHWA policy for acquisition of environmentally "contaminated" properties. The Contractor shall be required to perform necessary CERCLA "due diligence" actions for properties to acquired for the project. Contractor shall report all contamination to applicable Federal and state regulatory agencies and complete activities required by those agencies such as waste disposal, property remediation, and/or long term monitoring.</p> <p>The Contractor must follow Federal Aid Policy Guide Procedures for Abatement of Highway Traffic Noise and Construction Noise (23 CFR 772) and the State Noise Abatement Policy as part of their methodology for anticipating and estimating noise mitigation needs. Assumptions that existing barriers are effective in reducing noise from this project cannot be accepted.</p> <p>High-rise apartment buildings cannot be excluded from barrier estimates based on assumptions; sound barrier estimates must be included for all affected properties.</p>
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TAB 4: PUBLIC SUPPORT

a. Identify who will benefit from the project, how they will benefit and how the project will benefit the overall transportation system.

Division	CLARK	FLUOR AND TRANSURBAN
Northern Virginia District	<p>The Proposals do not provide any information that what kind of systems would be turned over to the Department when the contract is over. Specifically, does the Contractor propose to upgrade the system to meet the technology prevailing at the conclusion of the contract prior to turning over to Department?</p> <p>The Contractor should plan on installing CCTV cameras, VMS and perhaps sensors (or allow private partners to install sensors) on the HOT lane for purposes of traffic management. VMS will be used for informing the HOT lane pricing condition, but will also be needed for traffic management purposes. The travel time information can be displayed on VMS for the general-purpose lanes and the HOT lanes for</p>	<p>The Proposals do not provide any information that what kind of systems would be turned over to the Department when the contract is over. Specifically, does the Contractor propose to upgrade the system to meet the technology prevailing at the conclusion of the contract prior to turning over to Department?</p> <p>The Contractor should plan on installing CCTV cameras, VMS and perhaps sensors (or allow private partners to install sensors) on the HOT lane for purposes of traffic management. VMS will be used for informing the HOT lane pricing condition, but will also be needed for traffic management purposes. The travel time information can be displayed on VMS for the general-purpose lanes and the HOT lanes</p>

	<p>users to decide which facility they want to use.</p> <p>Most States utilize toll tag readers to generate travel time on roadway segments, since HOT lanes will use electronic toll collection, it would be desirable to use the toll tag readers as means of traffic data collection and calculate travel time to be posted onto VMS signs.</p>	<p>for users to decide which facility they want to use.</p> <p>Most States utilize toll tag readers to generate travel time on roadway segments, since HOT lanes will use electronic toll collection, it would be desirable to use the toll tag readers as means of traffic data collection and calculate travel time to be posted onto VMS signs.</p>
Northern Virginia District	<p>VDOT STC has agreements in place with private entities to install traffic sensors on the VDOT right-of-way. If sensors will be installed on HOT lane facility by non-VDOT entities as part of the Proposal, VDOT STC should have access to the raw real-time data with no charge or usage restrictions.</p> <p>VDOT STC operates hundreds of CCTV cameras. The images are shared in real time with other agencies, police, fire & rescue, etc. in the region via a private online network and with the general public via a public website (www.trafficland.com). This allows agencies and the general public to have one place to view not only VDOT cameras but also cameras owned and operated by the District of Columbia, Maryland State Highway Administration (MSHA), Montgomery Co, etc. CCTV camera images for the HOT/HOV lanes should be similarly shared with other agencies and the general public.</p> <p>The Department suggests that the proposal consider requirements for future ITS power and communications infrastructure devices and install anticipated carrier conduits, etc. for future expansion. There will be less disruption to traffic in the future if we put in place what we need during the HOT lane construction.</p> <p>The Proposals should develop an ITS functional and operational plan. The plan could spell out what systems (e.g. toll collection, CCTV, sensor, VMS) the HOV/HOT lane project will have, how they will be used (concept of operations), and which data and devices will be shared with other agencies using regional ITS architecture as the basis. This plan would address most, if not all of the preceding items and provide a framework to identify and discuss more detailed issues.</p> <p>The Proposals suggest centralizing all STC-type operations. This would appear beneficial although, as is usually the case with a proposal having many individual components, the “devil is in the details”. It is apparent from the preceding commentary, that moving forward with one of these</p>	<p>VDOT STC has agreements in place with private entities to install traffic sensors on the VDOT right-of-way. If sensors will be installed on HOT lane facility by non-VDOT entities as part of the Proposal, VDOT STC should have access to the raw real-time data with no charge or usage restrictions.</p> <p>VDOT STC operates hundreds of CCTV cameras. The images are shared in real time with other agencies, police, fire & rescue, etc. in the region via a private online network and with the general public via a public website (www.trafficland.com). This allows agencies and the general public to have one place to view not only VDOT cameras but also cameras owned and operated by the District of Columbia, Maryland State Highway Administration (MSHA), Montgomery Co, etc. CCTV camera images for the HOT/HOV lanes should be similarly shared with other agencies and the general public.</p> <p>The Department suggests that the proposal consider requirements for future ITS power and communications infrastructure devices and install anticipated carrier conduits, etc. for future expansion. There will be less disruption to traffic in the future if we put in place what we need during the HOT lane construction.</p> <p>The Proposals should develop an ITS functional and operational plan. The plan could spell out what systems (e.g. toll collection, CCTV, sensor, VMS) the HOV/HOT lane project will have, how they will be used (concept of operations), and which data and devices will be shared with other agencies using regional ITS architecture as the basis. This plan would address most, if not all of the preceding items and provide a framework to identify and discuss more detailed issues.</p> <p>The Proposals suggest centralizing all STC-type operations. This would appear beneficial although, as is usually the case with a proposal having many individual components, the “devil is in the details”. It is apparent from the preceding commentary, that moving</p>

	proposals will require much thought, discussion and coordination to ensure its success. In the event that one of these proposals is approved by the Commissioner to advance forward, staff at the VDOT NOVA District look forward to working with all involved to address these details and make the Proposal a success	forward with one of these proposals will require much thought, discussion and coordination to ensure its success. In the event that one of these proposals is approved by the Commissioner to advance forward, staff at the VDOT NOVA District look forward to working with all involved to address these details and make the Proposal a success
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b. Identify any anticipated government support or opposition, or general public support or opposition for the project.

Division	CLARK	FLUOR AND TRANSURBAN
Location and Design		The Fluor-Transurban team claims that support for the BRT/HOT Lanes System is growing. They included letters from several localities in NOVA, which demonstrated support for the project. In polls conducted by the team and AAA Potomac, 48% said they support tolls being charged to allow single occupant vehicles use of the HOV lanes. The support grew to 59% after the concepts behind HOT lanes were explained. Earlier this year in a Washington Post survey 55% of Northern Virginians that were polled were in favor of allowing single occupant vehicles who pay tolls access to HOV lanes. Also, the Fluor-Transurban team included a letter from Environment Defense and Breakthrough Technologies, which portrayed their support for the BRT/HOT plan.
Northern Virginia District	Regarding the 14 th Street Bridge connection, Both proposals need to provide additional detail on how the 14 th Street Bridge will handle increased traffic without creating a major backup on I-395. If the arterial road system in DC cannot handle this additional traffic, it will back up onto I-395 into Virginia creating a very bad gridlock situation	Regarding the 14 th Street Bridge connection, Both proposals need to provide additional detail on how the 14 th Street Bridge will handle increased traffic without creating a major backup on I-395. If the arterial road system in DC cannot handle this additional traffic, it will back up onto I-395 into Virginia creating a very bad gridlock situation

c. Explain the strategy and plans that will be carried out to involve and inform the agencies and the public in areas affected by the project.

Division	CLARK	FLUOR AND TRANSURBAN
Location and Design	<p>The project is compatible with FAMPO's unconstrained long-range plan and the project was included in VDOT's draft six-year plan. However, the project will have to be added to the local STIP to be included in the next air conformity mode.</p> <p>The Clark-Shirley team proposes to use \$30 million to improve the VRE transit system in the 95 corridor. The team assumes that the money will</p>	The extension of the HOV lanes has been recognized as a need by FAMPO. Elements of the project are in the constrained long-range plan of MWCG (Metropolitan Washington Council of Governments) and the unconstrained long-range plan of FAMPO (Fredericksburg Area Metropolitan Planning Organization). The proposed project will need to be reviewed for air quality by FAMPO and MWCG.

	<p>be used to purchase 15 double decker passenger cars. This will result in the possibility of 4500 trips per day being shifted to VRE and off the roadway transportation system.</p> <p>The Clark-Shirley team also proposed to use \$30 million to improve the bus/transit system in the corridor. The plan is to expand the existing park and ride lots at Horner Road, Rte. 3, and Garrisonville and Road and to construct a new lot in the Rte. 1 corridor near Dale Boulevard.</p>	<p>As part of this project, Fluor-Transurban proposes to construct 6 new park and ride lots and to construct 4 new express bus stations.</p>
Traffic Engineering Division	<p>In future submittals, we need details on what and how consultant will use real time data to implement dynamic pricing and control LOS on the HOV/HOT lanes. Details should include the data to be collected, locations, QC of data, and performance measures to be provided. Travel times should be a component.</p> <p>We would also like to see a detailed plan on incident management to include CMS, detour plans, Safety Service patrol, tow truck operations and possibly emergency diversion ramps to and from the HOT lanes. With the lack of shoulders, incident management is critical not only to maintain LOS, but also in providing safety to travelers and responders.</p> <p>We would like to see a comprehensive sign study that details the type, verbiage, and location of all signs throughout the corridor especially at junctions including the Springfield Interchange.</p>	<p>In future submittals, we need details on what and how consultant will use real time data to implement dynamic pricing and control LOS on the HOV/HOT lanes. Details should include the data to be collected, locations, QC of data, and performance measures to be provided. Travel times should be a component.</p> <p>We would also like to see a detailed plan on incident management to include CMS, detour plans, Safety Service patrol, tow truck operations and possibly emergency diversion ramps to and from the HOT lanes. With the lack of shoulders, incident management is critical not only to maintain LOS, but also in providing safety to travelers and responders.</p> <p>We would like to see a comprehensive sign study that details the type, verbiage, and location of all signs throughout the corridor especially at junctions including the Springfield Interchange.</p>
Northern Virginia District	<p>A congestion management plan must also be developed and provided for review.</p>	<p>A congestion management plan must also be developed and provided for review.</p>
Northern Virginia District	<p>\$30M – VRE Trains</p> <p>\$30M – bus/vanpool operations</p>	<p>\$510M subsidy - BRT operations</p> <p>\$250M concession payment to VDOT for BRT or other purposes</p>
Northern Virginia District	<p>The Virginia Department of Transportation (VDOT) currently has an Intelligent Transportation Systems (ITS) system on I-395/95 and is planning to look at a number of upgrades to this system starting with Variable Message Signs (VMS), closed circuit television (CCTV) cameras and condition monitoring devices/sensors. There are also certain improvements currently programmed in the VDOT Six Year Improvement Plan (SYIP). At such time that it is determined that either of these two proposals will be accepted and advanced, close and detailed coordination/communication between VDOT and the selected Contractor will be required so that those VDOT projects currently programmed can be assessed to determine their compatibility with the Proposal.</p> <p>There is some ambiguity in the proposals regarding who would be in</p>	<p>The Virginia Department of Transportation (VDOT) currently has an Intelligent Transportation Systems (ITS) system on I-395/95 and is planning to look at a number of upgrades to this system starting with Variable Message Signs (VMS), closed circuit television (CCTV) cameras and condition monitoring devices/sensors. There are also certain improvements currently programmed in the VDOT Six Year Improvement Plan (SYIP). At such time that it is determined that either of these two proposals will be accepted and advanced, close and detailed coordination/communication between VDOT and the selected Contractor will be required so that those VDOT projects currently programmed can be assessed to determine their compatibility with the Proposal.</p>

<p>ultimate control of the operation of this ITS infrastructure. It is anticipated that the Contractor will provide for the overall day-to-day operations of the ITS systems in the HOV/HOT lanes.</p> <p>VDOT, in its role as owner of this facility, would maintain decision-making authority throughout the corridor on issues related to mobility management as circumstances dictate. It is anticipated that VDOT Smart Traffic Center (STC) will have the authority, through the VDOT District Administrator and/or the Virginia State Police (VSP), to lift the HOV restrictions and tolls when incidents on the non-HOV/HOT lanes necessitate diversion of traffic to the HOV/HOT lanes in order to keep traffic moving through the corridor.</p> <p>Further discussion is needed to clarify and detail how the VDOT STC will coordinate, operationally/logistically, with either of these proposals. What specific responsibility will these entities have regarding operating the HOV/HOT facility, and specifically how will these be coordinated / interfaced / integrated with the STC which will be co-located with Fairfax County in the Public Safety Transportation Operations Center (PSTOC) in 2007. There will on occasion be incidents on the HOV/HOT facility where VDOT STC / SSP (Safety Service Patrol) might be in a more appropriate position to respond. VDOT STC /SSP has developed strong jurisdictional relationships with Virginia State Police (VSP) and local police / fire rescue. Additional discussion is needed in order to develop an effective response network that utilizes all available resources.</p> <p>VDOT now operates a 511-traveler information system (travelers can dial 511 and receive current traffic information for interstates). VDOT STC provides the majority of the Northern Virginia data to the system. HOV/HOT lane information (e.g. incident, construction, lane closure, and travel time) has to be shared with VDOT STC and/or the VDOT 511 system. The DC Metro region will have its 511 system in the future. The traffic data supporting that 511 system will come from the Regional Integration Transportation Information System (RITIS). The HOV/HOT lane project should participate in the data contribution (electronic, automatic data feed) to RITIS.</p>	<p>There is some ambiguity in the proposals regarding who would be in ultimate control of the operation of this ITS infrastructure. It is anticipated that the Contractor will provide for the overall day-to-day operations of the ITS systems in the HOV/HOT lanes.</p> <p>VDOT, in its role as owner of this facility, would maintain decision-making authority throughout the corridor on issues related to mobility management as circumstances dictate. It is anticipated that VDOT Smart Traffic Center (STC) will have the authority, through the VDOT District Administrator and/or the Virginia State Police (VSP), to lift the HOV restrictions and tolls when incidents on the non-HOV/HOT lanes necessitate diversion of traffic to the HOV/HOT lanes in order to keep traffic moving through the corridor.</p> <p>Further discussion is needed to clarify and detail how the VDOT STC will coordinate, operationally/logistically, with either of these proposals. What specific responsibility will these entities have regarding operating the HOV/HOT facility, and specifically how will these be coordinated / interfaced / integrated with the STC which will be co-located with Fairfax County in the Public Safety Transportation Operations Center (PSTOC) in 2007. There will on occasion be incidents on the HOV/HOT facility where VDOT STC / SSP (Safety Service Patrol) might be in a more appropriate position to respond. VDOT STC /SSP has developed strong jurisdictional relationships with Virginia State Police (VSP) and local police / fire rescue. Additional discussion is needed in order to develop an effective response network that utilizes all available resources.</p> <p>VDOT now operates a 511-traveler information system (travelers can dial 511 and receive current traffic information for interstates). VDOT STC provides the majority of the Northern Virginia data to the system. HOV/HOT lane information (e.g. incident, construction, lane closure, and travel time) has to be shared with VDOT STC and/or the VDOT 511 system. The DC Metro region will have its 511 system in the future. The traffic data supporting that 511 system will come from the Regional Integration Transportation Information System (RITIS). The HOV/HOT lane project should participate in the data contribution (electronic, automatic data feed) to RITIS.</p>
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TAB 5: PROJECT BENEFIT/COMPATIBILITY

a. Describe the significant benefits to the community, region or state. Identify any state benefits resulting from the project including the achievement of state transportation policies or other state goals.

Division	CLARK	FLUOR AND TRANSURBAN
Project Manager	<p>The 95 Express solution addresses the needs of various affected jurisdictions and the commuting public while at the same time delivering these improvements at no cost to the Commonwealth. Some of the highlights of the proposal are:</p> <ul style="list-style-type: none"> • Significant Transportation Improvements – The 95 Express solution delivers transportation improvements from Route 1 in Spotsylvania County to Washington, D.C. and improves travel times for HOV/HOT, bus/vanpool and general use lane commuters. • No Public Funding – The 95 Express solution is 100% privately financed and has no impact on the Commonwealth’s credit rating or balance sheet. VDOT’s programmed funding for Phase 8 of the Springfield Interchange is not required. This results in a savings to VDOT of approximately \$85 million, which can be applied to other transportation projects. • New Funding – The 95 Express solution includes \$30 million to Virginia Rail Express, and \$30 million for bus/vanpool operations in the corridor. 	<p>The Fluor-Transurban proposed plan offers increased capacity, an integrated transit component and more choices for both commuters and transportation providers than are previously available. Some of the significant highlights of the proposal are:</p> <ul style="list-style-type: none"> • Two plans of finance, tax-exempt and concession approaches, that will allow the project to be financed without the need for public tax dollars. The tax exempt plan anticipates generating a \$510 million subsidy available for BRT operations over the term of the Comprehensive Agreement, and the concession plan anticipates a concession payment of \$250 million at financial close that can be used for BRT or other VDOT purposes. • Achieves long-standing regional goals. The plan will establish a BRT/HOV system that will increase HOV lane capacity and will connect these lanes to new regional employment centers. • Creates a 56 miles system – By adding a third lane to the existing HOV system, and extending the BRT/HOT/HOV benefits an additional 25 miles further to the south, the project will serve as the backbone of a regional BRT/HOT Lanes System. When connected to the Beltway HOT Lanes, by way of Phase 8 of the Springfield Interchange, this plan will expand the system, thereby, providing improved levels of service and access not currently available in either of the existing corridors.

b. Describe significant benefits to the state's economic condition. Discuss whether this project is critical to attracting or maintaining competitive industries and businesses to the state or region.

Division	CLARK	FLUOR AND TRANSURBAN
Project Manager	<p>The 95 Express solution expands the overall HOV system from Washington, D.C. to Spotsylvania County while offering an option for Low Occupancy Vehicles. At the same time, the 95 Express solution enhances mass transit and provides overall relief to general-purpose lane users and local traffic in Stafford and Spotsylvania counties. The 95 Express solution provides these benefits using 100% private financing at</p>	<p>The beneficiaries of this project will include those individuals who pay to use the BRT/HOT Lanes, carpoolers, vanpoolers, sluggers, BRT/express bus riders, employers and employees, general-purpose lane users, as well as the entire regional transportation network.</p> <p>The Fluor-Transurban Team has structured its Subcontracting Plan to</p>

	<p>a time of limited public funding.</p> <p>The Clark Team includes the most experienced HOT lanes firms in Virginia and U.S. The other team members are also experts in their respective fields. By using local design and construction resources, the Clark team's delivery efforts will take advantage of the most efficient project delivery methods, equipment and materials.</p> <p>The Clark team conceptual cost estimate for this project is \$817.975 million.</p>	<p>address work components that can be most effectively and efficiently performed by firms in the Virginia region.</p> <p>The Fluor-Transurban Team conceptual cost estimate for this project is \$913.4 million.</p>
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